

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 4. (canceled).

5. (currently amended): A tire sensor device comprising:

~~a plurality of sensor devices, each comprising a sensor for detecting the condition of a tire, installed at predetermined locations of the tire; and~~

~~—— a base station, connected to the sensor devices, for processing signals indicative of the conditions of the tire detected by the sensors and transmitting the processed signals to the car body-side.~~

a plurality of sensor devices installed at predetermined locations of a tire; and

a base station arranged in a tire interior and which communicates with the plurality of

sensor devices; wherein

each of the sensor devices has a sensor which detects a condition of the tire and a

communication device,

the base station comprises:

an internal communication device having a first antenna and communicating with

the plurality of sensor devices;

an information processing device which processes a tire information signal wherein the tire information signal is information of condition of the tire detected in the sensor; and

an external communication device having a second antenna and transmitting processed tire information to a car body side, wherein:

the first antenna is arranged on a tire air chamber side of a wheel,

the second antenna is arranged on an opposite side to the tire air chamber side of the wheel, and

the communication device of the sensor devices has an antenna arranged on the tire air chamber side and is operable to communicate with only the base station and other sensor devices.

6. (canceled).

7. (currently amended): The tire sensor device according to claim-~~6~~5, wherein the communication device of each sensor is provided with means of receiving a radio wave transmitted from the base station to generate power voltage for driving the sensor.

8. (currently amended): The tire sensor device according to claim-~~6~~5, wherein the base station is provided with the function of controlling the sensors synchronously to measure a plurality of tire information data.

9. (original): The tire sensor device according to claim 5, wherein the sensor devices are each provided with power regenerating means for receiving a radio wave transmitted from the car body side to generate power voltage for driving the sensors.

10. (canceled).

11. (original): The tire sensor device according to claim 5, wherein the base station is provided with storage means for storing the tire information signals.

12. (original): The tire sensor device according to claim 11, wherein the base station is provided with means of processing data on tire information stored in the storage means into data based on the communication specifications of a vehicle equipped with the device so as to transmit the processed data to the car body side.

13. (original): The tire sensor device according to claim 5, wherein the base station is provided with power regenerating means for receiving a radio wave transmitted from the car body side to generate power voltage.

14. (original): The tire sensor device according to claim 5, wherein a predetermined sensor device is provided with means of storing power and means of detecting the rotation angle of the sensor of the sensor device to detect the condition of the tire at a predetermined rotation position.

15. (original): The tire sensor device according to claim 5, wherein a predetermined sensor device is provided with means of storing power, the base station is provided with means of detecting the rotation angle of the sensor of the sensor device, and a tire condition detection timing signal for the sensor is supplied to the sensor device from the base station to detect the condition of the tire at a predetermined rotation position.

16. (original): The tire sensor device according to claim 5, wherein a sensor device having no sensor is mounted so that detected tire information can be added.

17. (currently amended): The tire sensor device according to claim ~~6 or 10~~ 5, wherein the communication device or the transmitter is arranged away from the tire.

18. (currently amended): The tire sensor device according to claim ~~6 or 10~~ 5, wherein the base station is mounted to a tire rim portion or a valve device installed on the wheel, and the communication devices or transmitters of the sensors are mounted to the tire through a base-isolated device.